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26. RECORD OF *COLISA LABIOSA* (DAY) (PISCES: BELONTIDAE) FROM INDIA

During the course of a survey of the fish fauna of Assam in 1990-91, three specimens of a belontid fish *Colisa labiosa* (Day) were collected from a beel near Jorhat, Assam (94° 10' E, 26° 44' N). *C. labiosa* is a Burmese form, found in the Irrawady at Rangoon and as high as Mandalay (THE FISHES OF INDIA, Day, F.1878; THE FRESHWATER FISHES OF INDIA, Jayaram, K.C. 1981; Bhattacharyya, pers. comm. 1991. Perusal of literature revealed that *C. labiosa* has not so far been recorded from India. The fish was identified with the following diagnostic characters.

D.XV-XVI, 10-12; P.10; V.1; A.XVII, 16-17; C.15

Head length 4.20-4.25 and body depth 2.60-3.40 in total length (84-102 mm). Eye diameter 3.43-3.50 and interorbital distance 2.18-2.21 in head length. Lips very thick and covered with papillae as in *Labeo*. Maxilla reaches to below the anterior nostril. Soft portions of dorsal and anal fins elongated and caudal wedge-shaped. Eight to ten obliquely vertical bluish bars are present on the sides. A light yel-

lowish red band from the eye across the lower jaw behind the lip. Outer edge of anal is yellowish red.

The number of spines and rays in both the dorsal and anal fins of the present specimens was not identical with those recorded by Day (1878). The possibility of such variations in *Colisa* has already been indicated (Day 1878).

C. labiosa is allied to the north Indian species *C. fasciata*, but differs in its thick papillated lips, wedge-shaped caudal fin and the number of bands on the sides. The specimens are preserved in the laboratory of Fisheries Research Unit, Assam Agricultural University, Jorhat.

We thank Dr. (Miss) N. Sen, ZSI, Shillong for confirming the identification and Dr. S.K. Bhattacharyya, ZSI, Calcutta, for helpful comments.

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May 21, 1991

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27. HOST ASSOCIATION AND UNDESCRIBED ALATE VIVIPAROUS FEMALE OF *MATSUMURAJA CAPITOPHOROIDES* HILLE RIS LAMBERS (HOMOPTERA: APHIDIDAE)
(With five text-figures)

The genus *Matsumuraja* Schumacher has 15 species distributed in China, Formosa, India, Japan and Pakistan. Most of the species infest *Rubus* spp. (except *M. urtica* Ghosh *et al.* and *M. intermedia* Saha *et al.* which are known from plants of the family Urticaceae). Only *M. rubifoliae* Takahashi is known from two hosts, and alternates between *Clethra barbinervis* (primary host) and *Rubus* spp. (secondary host). Sexual morphs of only *M. rubifoliae* are known. This shows that most of the species under this genus are autoecious and an-

holocyclic.

In India, 5 species under this genus are known. *M. capitophoroides*, originally described from Pakistan, has been reported subsequently from north-western, western and north-eastern Himalaya (Chakrabarti and Raychaudhuri 1975, Chowdhuri *et al.* 1969, Ghosh *et al.* 1971 and Raychaudhuri 1980). Hille Ris Lambers (1966) while describing this species, stated that the species does not show any host alternation. Chowdhuri *et al.* (1969) reported this species both from *Rubus macilentus* and an

unidentified graminaceous plant. The sample from Gramineae was collected in the month of September. Recently, we also observed a few colonies of this species infesting *Poa annua* during post monsoon period and these colonies persisted there till the winter and then migrated elsewhere. This shows that *M. capitophoroides* Hille Ris Lambers is a host-alternating species and alternates between plants of Rubiaceae, Rosaceae and Gramineae.

So far this species was known by only apterous viviparous females on *Rubus* spp. The hitherto unknown alate viviparous females and apterous viviparous females collected on *Poa annua* are described here. Besides, some additional characters of apterous viviparous female on primary host are also given.

Apterous viviparous female (on grass): Body elongated, 1.54-1.80 mm long and 75-85 μ m wide. Head with moderately developed lateral frontal tubercles, dorsum with 8 hairs on developed socket, longest hair on vertex 47-49 μ m long and 1.90-2.33 times the basal diameter of antennal segment III. Processus terminalis 2.58-2.84 times the base of the segment and 1.23-1.37 times the segment III; antennal process on segment I 0.35 mm long, 3.1-3.4 times its basal width and 3.36-4.22 times the basal diameter of antennal segment III. Abdominal dorsum with thick and blunt hairs located on elevated cone; each tergite with 6 hairs; longest hair on anterior tergite 47-50 μ m long and 2.0-2.20 times the basal diameter of antennal segment III, longest spinal hair on 7th and 8th tergites 79-94 and 58-79 μ m long and 3.09-4.0 and 2.50-2.90 times the basal diameter of antennal segment III respectively. Siphunculi 0.23-0.25 times the body and 3.1-3.9 times the cauda. Otherwise as in apterous viviparous females on *Rubus* spp. and on *Rosa* spp.

Measurements of one specimen (in mm): Body length 1.64, width 0.84; antennal length 1.08, antennal segments III:IV:V:VI 0.28: 0.17: 0.20: (0.12+0.35); ultimate rostral segment 0.10; second joint of hind tarsus 0.10; siphunculus 0.44; cauda 0.11.

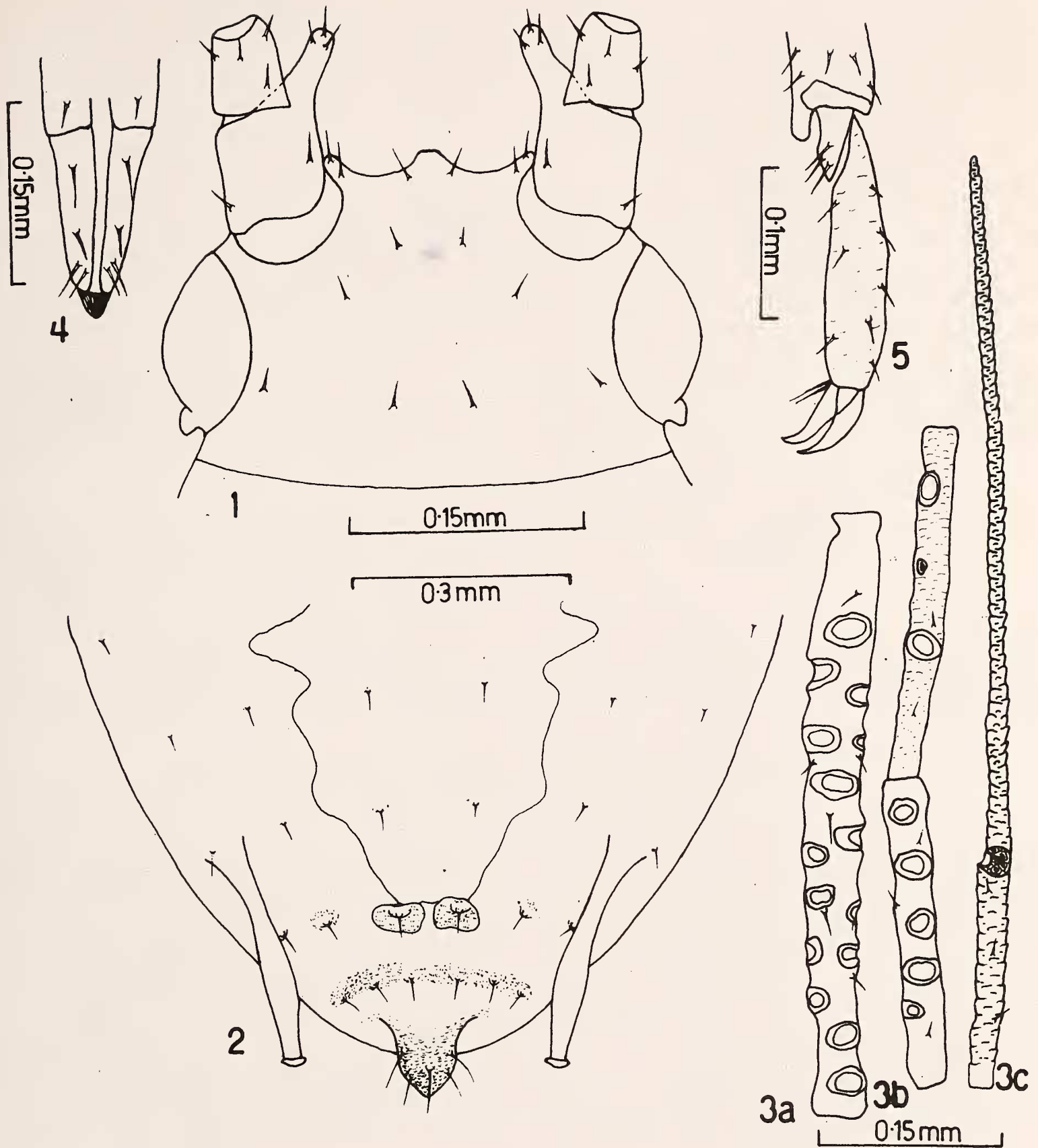
Alate viviparous female (on grass) (Figs. 1-5): Body 1.76-2.0 mm long and 0.80-0.89 mm as maximum width. Head dark brown, smooth, with moderately developed lateral frontal tubercles and median prominence; dorsum with 8 small, stout and pointed

hairs, except on lateral frontal tubercles and median prominence, each of which with a pair of hairs, longest one on head 188-235 μ m long and 0.72-0.83 times the basal diameter of antennal segment III.

Antennae 6 segmented, 0.69-0.74 times the body, concolorous with head, smooth except segment IV which is imbricated apical; processus terminalis 2.53-3.0 times the base of the segment and 1.05-1.11 times the segment III; segment I with a strongly developed antennal process which is 0.037-0.039 mm long, 2.28-2.42 times its basal width and 1.41-1.45 times the basal diameter of antennal segment III, with 3 hairs; segments I, II and III with 2, 4 and 5-6 hairs respectively, flagellar hairs small and pointed, longest one on segment III 117 μ m long and 0.45 times the basal diameter of antennal segment III; segments III, IV and V with 15-18, 5-7 and 2-3 oval to rounded secondary rhinaria respectively; primary rhinaria non-ciliated.

Rostrum reaches nearer to mid-coxae, ultimate rostral segment 0.093 mm long and as long as second joint of hind tarsus and with a pair of accessory hairs. Thorax dark brown, strongly sclerotised, mesothoracic lobe with a broad base; wing veins normal, pale brown in colour, pterostigma long, pointed and scaly. Legs concolorous with head, smooth except spinulated coxae and faintly imbricated second tarsal segments: first tarsal segments with 3 hairs. Abdominal dorsum membranous, smooth except marginal spinules; abdominal segments 1, 2, and 8 with separate small spinal patches, marginal patches on anterior tergites not discernible but present on tergites 6-8, tergites 3-7 with a large brown spinopleural patch; dorsal hair small, acute to acuminate, each tergite with 6 hairs, on anterior tergites 4-8 on small elevated cones, those on 7th tergite large; longest hair on anterior tergite 164-188 μ m long and 0.63-0.66 times the basal diameter of antennal segment III, those on 7th and 8th tergites 352 μ m long, and 1.16-1.36 times the basal diameter of antennal segment III respectively.

Siphunculi elongated, brown in colour, smooth except basal cylindrical imbricated part, apical part elevated; 0.17-0.19 times the body and 3.60-4.22 times the cauda. Cauda pentagonal with 5 hairs. Venter spinulose, ventral hairs numerous, larger and thinner than dorsal hairs; genital plate with 6 hairs on anterior margin in 2 groups each with 3 hairs, and 12



Figs. 1-5. *Matsumuraja capitophoroides* Hille Ris Lambers. Alate viviparous female.
 1. Head, dorsal view, 2. Abdomen, posterior part, 3a. Antennal segment III, 3b. Antennal segments IV and V,
 3c. Antennal segment VI, 4. Ultimate rostral segment, 5. Hind tarsal segments.

hairs on posterior margin in a half round row. Other characters as in apterous viviparous females on *Rubus* spp. and *Rosa* spp.

Measurements of one specimen (in mm): Body length 2.0, width 0.80, antennal length 1.38, antennal segments III:IV:V:VI 0.34:0.17:0.20: (0.14 + 0.36); ultimate rostral segment 0.09; second joint of hind tarsus 0.09; siphunculus 0.36; cauda 0.08.

Apterous viviparous female (on *Rosa*): Re-examination of additional materials collected from *Rosa* sp. reveals that the description of this species should be modified as follows:

Body 1.84-2.17 mm long and 0.75-0.106 mm wide; processus terminalis 1-1.23 times the length of the antennal segment III; longest hair on antennal segment III 0.29-0.46 times the basal diameter of the segment; ultimate rostral segment 0.93-0.96 times the second joint of hind tarsus; siphunculi 0.20-0.23

times the body and 2.75-3.46 times the cauda.

Material examined: 4 apterae, ex *Rosa* sp., Bhowali (c. 1770 m), 24 May 1969, coll. S. Chakrabarti; 10 apterae, 2 alatae and 12 nymphs, ex *Poa annua*, Joshimath (c. 1845 m), 5 Sep. 1988, coll. S. Chakrabarti (Coll. No. 6389).

ACKNOWLEDGEMENTS

We thank the Head, Department of Zoology, for laboratory facilities. The financial assistance received from the Council of Scientific and Industrial Research and University Grants Commission for the work is also acknowledged.

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May 12, 1990. SAMIRAN CHAKRABARTI

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28. TAXONOMY OF SOME INDIAN *TENTHREDO* LINN. (HYMENOPTERA: TENTHREDINIDAE)

Singh and Saini (1988) described some new species of *Tenthredo*, including *T. malaisei* and *T. petiolata*. Dr. A. Taeger of Eberswalde has pointed out that *T. malaisei* Singh and Saini, 1988 is a junior secondary homonym of *Tenthredo bipunctula malaisei* Takeuchi, 1933. Therefore a new name *Tenthredo pseudoappendicella* n. nov. is proposed here to replace the junior homonym.

Similarly *T. petiolata* Singh and Saini, 1988 turns out to be a junior synonym of *T. aeruginea* Enslin, 1912. Though we could not trace the holotype of *T. aeruginea*, the holotype of *Allantus brunnea* Cameron, 1899, established as its synonym by Malaise, 1945, was made available to us for com-

parative studies through the kind courtesy of Dr. N.D. Springate of BMNH, London. This holotype (with labels- "*Allantus brunneus* Cam. Type, Khasia", "BMNH", "956") resembles completely the holotype of *T. petiolata* (with labels *Tenthredo petiolata* Singh & Saini, "Uttar Pradesh, Mandal, 2300 m, 13.6. 1983", Holotype). Though there are some colour differences, these can easily be considered as population variation. Hence *T. petiolata* Singh and Saini should be taken as a junior synonym of *T. aeruginea* Enslin.

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April 10, 1990.

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